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i2 SUMMIT

DIFFERENCES IN CORONARY INTRAVASCULAR ULTRASOUND FINDINGS IN EARLY, LATE, AND VERY LATE STENT THROMBOSIS AFTER SIROLIMUS-ELUTING STENT IMPLANTATION.

i2 Poster Contributions
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Background: Stent thrombosis (ST) after sirolimus-eluting stent (SES) implantation is a fatal complication. However, the pathophysiology has not been fully evaluated. The aim of this study was to evaluate acute and long-term intravascular ultrasound (IVUS) findings in pts with ST.

Method: Of 3,902 pts (4,171 lesions) treated with SES between May 2004 and April 2009, serial quantitative IVUS analysis was performed at the minimum lumen site before and after SES implantation and after ST in 25 pts (0.64%) with ARC definite ST.

Results: Early ST (n=12), late ST (n=7) and very late ST (n=6) occurred median 10 (IQR 2.5-14), 85 (IQR 35-260), and 675 (IQR 461-1020) days after SES implantation, respectively. There was no significant difference in baseline demographic features or baseline IVUS findings among the 3 groups. When post-SES implantation cross-sectional area (CSA; mm2) was compared among the 3 groups, pts with very late ST had a higher rate of change in vessel CSA compared with those with early and late ST (P=0.0071), although the rates of change in lumen and stent CSA among the 3 groups were similar. (Figure) Of 6 pts with very late ST, late acquired incomplete stent apposition (ISA) was observed in 4 pts, and 3 of these 4 pts discontinued dual antiplatelet therapy in the month prior to experiencing ST.

Conclusions: After SES implantation, late ISA caused by positive remodeling is common in pts with very late ST. If late ISA is observed at follow-up angiography, continuation of dual antiplatelet therapy may be warranted.